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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/040,506	12/27/2001	David M. Hall	10013144	2614

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EXAMINER PHAM, THIERRY L	
ART UNIT 2624	PAPER NUMBER

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/040,506	Applicant(s) HALL ET AL.	
	Examiner Thierry L. Pham	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| ✓ <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

- This action is responsive to the following communication: Non-provisional application filed on 12/27/01.
- Claims 1-34 are pending in application.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 7, 9-13, 15, 17-18, 20-25, 27-34 are rejected under 35 U.S.C. 102(e) as being anticipated by Nakagiri (US 6606669).

Regarding claim 1, Nakagiri discloses a system (print system, fig. 1) for use in enabling printing of a document, the system comprising:

- a printing device (printer 1500, fig. 1) configured to establish a communication link (via cable 21, fig. 1) with a computing device, the printing device including memory (ROM 13, fig. 1) having print software (i.e. printer driver, fig. 2) stored therein, the print software being transferable to and executable on the computing device (transfer print driver to host computer 3000, fig. 3) and, upon execution, configured to enable the computing device (col. 4, lines 49-67) to print documents to the printing device;
- wherein the printing device (printer 1500 transfers print driver to host computer 3000, fig. 3) is configured to download the print software to the computing device upon establishment of the communication link (link via cable 21, fig. 1) between the printing and computing devices.

Regarding claim 2, Nakagiri further discloses the system of claim 1, wherein the print software includes a print driver (printer driver, fig. 3).

Regarding claim 3, Nakagiri further discloses the system of claim 1, wherein the print software includes a print application (printer driver and various application programs, fig. 4, col. 4, lines 35-67) configured to send a print job from the computing device to the printing device

Regarding claim 7, Nakagiri further discloses the system of claim 1, wherein the communication link is a hardware link (interface 21, fig. 1).

Regarding claim 9, Nakagiri further discloses the system of claim 1, wherein the printing device includes a file system accessible (data ROM 13, fig. 2) by the computing device.

Regarding claim 10, Nakagiri further discloses the system of claim 9, wherein the file system includes a start-up program (OS, fig. 4) configured to automatically execute (automatically execute, col. 7, lines 5-21) and download the print software to the computing device, upon recognition (upon recognition of OS file, fig. 4, cols. 5-6) of the file system by the computing device.

Regarding claim 11, Nakagiri further discloses the system of claim 1, wherein the printing device is configured to identify print software that is compatible (compatible with host computer, fig. 4, cols. 5-6) with the computing device.

Regarding claim 12, Nakagiri further discloses the system of claim 11, wherein the printing device is configured to select the compatible print software (select printer driver, fig. 4) for downloading to the computing device.

Regarding claim 13, Nakagiri further discloses the system of claim 1, wherein the communication link (interface 21, fig. 1) is established in response to a signal from (col. 8, lines 20-30) the computing device to the printing device.

Regarding claim 15, Nakagiri further discloses a method for use in enabling printing (print system, fig. 1) on a printing device, the method comprising: detecting the establishment of a communication link (via cable 21, fig. 1) between a computing device and the printing device; and in response to the establishment of the communication link, downloading print software stored in memory of the printing device to the computing device (transfer print driver to host computer 3000, fig. 3), the print software being useful in the computing device printing documents (col. 4, lines 49-67) on the printing device.

Regarding claim 17, Nakagiri further discloses the method of claim 15, wherein downloading print software includes sending the print software via a hardware link (interface 21, fig. 1).

Regarding claim 18, Nakagiri further discloses the method of claim 15, further comprising sending a print job (col. 8, lines 8-30) from the computing device to the printing device.

Regarding claim 20, Nakagiri further discloses the method of claim 18, wherein sending the print job includes sending the print job via a hardware link (interface 21, fig. 1).

Regarding claim 21, Nakagiri further discloses the method of claim 15, further comprising automatically (transfer printer driver from printer to pc automatically, col. 8, lines 8-30) executing and downloading the print software to the computing device, upon recognition of a file system by the computing device.

Regarding claim 22, Nakagiri further discloses the method of claim 15, further comprising, identifying print software that is compatible (identifying compatibility prior to transfer printer driver from printer to host pc, fig. 4) with the computing device.

Regarding claim 23, Nakagiri further discloses the method of claim 22, further comprising, selecting (S44, fig. 4) the compatible print software on the printing device for downloading to the computing device.

Regarding claim 24, Nakagiri further discloses the method of claim 15, further comprising selecting print software from a plurality of software components (fig. 2) stored in memory of the printing device.

Regarding claim 25, Nakagiri further discloses the method of claim 15, further comprising signaling the printing device and establishing the communication link (interface 21, figs. 1-2) in response to signaling the printing device.

Regarding claim 27, Nakagiri further discloses a program storage medium (ROM, fig. 2) readable by a computing device, the program storage medium tangibly embodying a program of instructions executable by the computing device to perform a method for use in enabling a computing device to print on a printing device, the method comprising: detecting establishment of a communication link (interface 21, fig. 1) between the computing device and the printing device; and in response to the establishment of the communication link, downloading print software stored in the memory of the printing device to the computing device (fig. 3), the print software being useful in the computing device to print documents on the printing device.

Regarding claim 28, Nakagiri further discloses a printing device (printer 1500, fig. 1) comprising: memory having (ROM 13, fig. 1-2) a print driver configured to enable printing on the printing device; and a communication link selectively established between the printing device and a computing device to enable download (fig. 3) of the print driver from the printing device to the computing device in response to receipt of a signal.

Regarding claim 29, Nakagiri further discloses a printing method comprising: receiving a signal to establish a communication link (interface 21, fig. 1) between a printing device and a computing device; establishing the communication link (fig. 4) with the computing device; upon

establishing the communication link, downloading a printer driver stored in memory (fig. 3) of the printing device to the computing device via the communication link, the printer driver being useful in the computing device printing on the printing device; receiving a print job from the computing device; and printing the print job on the printing device (printer 1500, fig. 1).

Regarding claim 30, Nakagiri further discloses a printing device, comprising: a file system (ROM 13, fig. 1); print software (printer driver, fig. 2) stored in the file system; and means for communicatively (interface 21, fig. 1) coupling the printing device to a computing device so as to allow the computing device to selectively download (fig. 3) from the printing device portions of the print software.

Regarding claim 31, Nakagiri further discloses the printing device of claim 30, wherein the print software further includes a start-up program usable (OS, figs. 2-3) for initiating downloading from the printing device of the portions of the print software.

Regarding claim 32, Nakagiri further discloses the printing device of claim 30, wherein the portions of the print software correspond to characteristics (version of OS system, figs. 3-4) of the computing device.

Regarding claim 33, Nakagiri further discloses the printing device of claim 30, wherein the characteristics of the computing device are selected from a group consisting of an operating system identifier (OS identifier, figs. 3-4), an application program identifier (driver version, fig. 3), and a computing device identifier (col. 6, lines 20-65 and col. 8, lines 8-30).

Regarding claim 34, Nakagiri further discloses a processor-readable medium (ROM 13, fig. 2) for a printing device having processor-executable instructions thereon which, when executed by a processor, cause the processor to: detect establishment of a communications link (interface 21, fig. 1) between the printing device and a computing device; and in response to the establishment of a communications link, uploading print software stored in memory of the

printing device to the computing device (fig. 3), the print software being useful in the computing device for printing on the printing device.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-6, 8, 14, 16, 19, 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagiri (US 6606669), and in view of Itoh et al (US 5490287).

Regarding claim 4, Nakagiri teaches a printing system (fig. 1) comprising a host computer 3000 and printer 1500 connected via a wired interface 21 (fig. 1), but fails to teach and/or suggest a communication link (interface 21, fig. 1) is a wireless communication link.

Itoh, in the same field of endeavor for printing, teaches a printing system using a wireless communication link for communicating between host computer and printer (figs. 6-7, col. 5, lines 10-40).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made by modifying printing system of Nakagiri to include a wireless communication link (e.g. wireless communication is well known in the art) as taught by Itoh because of a following reason: (●) the wireless device as taught by Itoh requires less total power and contributes to network security (col. 1, lines 49-55); (●) wireless communication provides better portability, for example, network printer can be placed in various different locations without having to incur additional costs (i.e. hardware costs) as comparing to traditional wired interface link.

Therefore, it would have been obvious to combine Nakagiri with Itoh to obtain the invention as specified in claim 4.

Regarding claims 5-6, 8, 16, and 19 Itoh also teaches an infrared, radio frequency communication link (col. 5, lines 4-6), and USB (USB is well known and available in the art).

Regarding claims 14 & 26, Itoh teaches wherein the printing device is configured to periodically broadcast (figs. 2-3) a signal to the computing device for the purpose of establishing the communication link (figs. 2-3).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US 2002/0067504 to Salgado et al, teaches an automatically updating printer driver by connecting and downloading from remote sites.
- US 2003/0048473 to Rosen, teaches a printing system wherein a printer driver is transferred from printer to host computer when a printer is coupled to a host computer.
- US 2003/0066066 to Nguyen et al, teaches a printing system wherein a printer driver is transferred from printer to host computer when a printer is coupled to a host computer.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thierry L. Pham whose telephone number is (571) 272-7439. The examiner can normally be reached on M-F (9:30 AM - 6:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on (571)272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thierry L. Pham



**GABRIEL GARCIA
PRIMARY EXAMINER**